

REMARKS

Claims 1-20 are pending in the present application.

In the outstanding Office Action, the Examiner rejected claims 1-9 and 12-18 under 35 U.S.C. 103(a) as being unpatentable over Gogami et al. in view of Takahashi. Applicants have amended independent claims 1 and 12 and reconsideration and allowance of claims 1-20 are earnestly solicited in view of the present amendments and the following comments.

Claim 1 has been amended to better clarify that the layer 7 illustrated in the present figures in that the previous language “bonding layer” has been replaced with “protective covering layer”. No new matter is being introduced by this amendment since the specification supports this amendment and in particular, the specification beginning at page 5, line 14, describes that the “bonding layer” represents an additional protective covering.

Claim 1 has been amended to recite that the second cavity encloses a volume of air and the protective covering layer shields the semiconductor chip from at least most the volume of air. No new matter is being introduced by this amended since this added feature is fully supported by the specification. For example, the feature is set forth in the specification at page 4, second paragraph, as well as on page 5, lines 7 to 12 and on page 12, lines 17-18.

As illustrated in Figure 1 of the present application and according to one aspect of the present invention, a protective covering layer 7 is provided which is used for adhesively connecting the carrier substrate 2 to the chip card body 1 as well as for shielding the semiconductor chip 3 from moisture or pollutants which might exist in the air volume within the second cavity. As disclosed on page 5, line 8 of the present specification, the volume of air within the second cavity is divided by the protective covering layer 7 (which means that this portion of volume is separated from the semiconductor chip 3 by means of the protective covering layer 7). Only a small portion of the volume of air within the second cavity, if any, is in contact with the semiconductor chip 3. Accordingly, in case that moisture or pollutants exist in the volume of air, only a small portion

thereof can get into contact with the semiconductor chip 3 due to the presence of the protective covering layer 7.

Applicants respectfully submit Gogami et al. neither disclose nor suggest the above added feature. In fact Gogami et al. is silent as to this feature since this reference does not disclose a bonding or protective covering layer as admitted by the Examiner in the outstanding Office Action. The Examiner looks to Takahashi to supply this missing layer; however, Applicants respectfully submit that this secondary reference does not include a protective covering layer having the claimed characteristics. More particularly, Takahashi fails to disclose a chip card with a second, layer cavity including an air volume and with a protective covering layer provided therein.

Figure 1 of Takahashi discloses a chip card where the space within the second cavity of the chip card is completely filled with the semiconductor chip (no reference number) and with the adhesive 14. This is described in column 4, lines 5 and 31, of the Takahashi reference. Accordingly, the problem underlying the present invention of how to shield the semiconductor chip from a volume of air does not occur in the Takahashi design, and as a consequence, Takahashi fails to provide a solution of this object as set forth in amended claim 1. Since this secondary reference fails to cure the deficiency of the primary reference and likewise neither discloses nor suggests the feature amended to claim 1, the rejection of claim 1 should be withdrawn and the claim passed to issue.

In an alternative embodiment of Takahashi that is illustrated in Figure 5, a volume of air is provided in the second cavity in addition to the semiconductor chip 11b. However, this embodiment fails to disclose that the protective covering layer 14 extends from the base of the first cavity into the interior of the second cavity and the protective covering layer shields the semiconductor chip 11b from the volume of air. Instead, the semiconductor chip 11b is exposed to the volume of air in the second cavity which is completely contrary to the object of the present invention and the arrangement set forth in amended claim 1.

For at least the above reasons, Applicants respectfully request reconsideration and allowance of claim 1, as amended.

Claims 2-9 should be allowed as depending from what should be an allowed independent claim 1, as amended.

Claim 12 has been amended in the same manner as how claim 1 has been amended and therefore, claim 12 should be allowed for the same reasons discussed above as to why claim 1 should be allowed over the cited references. In particular, the amended feature of claim 12 that the second cavity encloses a volume of air and the protective covering layer shields the semiconductor chip from at least most the volume of air. This feature is lacking in the cited references either taken alone or in combination. Reconsideration and allowance of claim 12, as amended, are earnestly solicited at this time.

Claims 13-18 should be allowed as depending from what should be an allowed independent claim 12, as amended.

Claims 10 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gogami et al. in view of Fidalgo.

Claim 10 should be allowed as depending from what should be an allowed independent claim 1, as amended, and claim 19 should be allowed as depending from what should be an allowed independent claim 12, as amended. The Fidalgo reference fails to cure the deficiencies of the primary reference and therefore, the claims should be allowed.

Claims 11 and 20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gogami et al. in view of Berney.

Claim 11 should be allowed as depending from what should be an allowed independent claim 1, as amended, and claim 20 should be allowed as depending from what should be an allowed

independent claim 12, as amended. The Berney reference fails to cure the deficiencies of the primary reference and therefore, the claims should be allowed.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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